

REMARKS

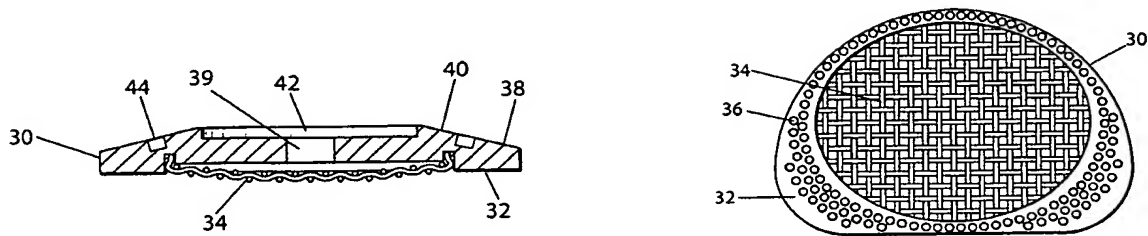
The present Amendment is in response to the Office Action mailed January 24, 2008. A Petition for a three-month extension of the term for response to said Office Action, to and including July 24, 2008 is transmitted herewith. A Request for Continued Examination (RCE) is submitted herewith.

Claims 1-9, and 11-41 were rejected in the Action. No claims have been amended, added or cancelled herein. Therefore, claims 1-9, and 11-41 are currently pending in the present application. Applicants set forth remarks relating to the Official Action below.

Applicants would like to thank the Examiner for conducting an interview with Applicants' undersigned attorney on April 29, 2008. The substance of the interview focused on the teachings of U.S. Patent No. 5,370,697 to Baumgartner ("Baumgartner") and U.S. Patent No. 4,759,769 to Hedman et al. ("Hedman"). Applicants' undersigned attorney reiterated the Applicants' position that there are several recitations in independent claim 1 that are neither disclosed nor suggested in Baumgartner and Hedman. This Interview is evidenced by the Examiner's Interview Summary of May 1, 2008 ("the Summary").

In the Action, the Examiner objected to the specification as failing to provide proper antecedent basis for the claimed subject matter. Specifically, the Examiner objected to the limitation that "only" the perimeter of the groove and "only" the perimeter of the "contact element" is disposed in the groove on the basis that they were not described in the specification. Applicants respectfully disagree and traverse. As clearly shown in Figs. 1e-1f of the present application (reprinted below), the perimeter of the vertebral body contact element of the present invention is the only portion of the vertebral body contact element that is secured to the outwardly-

facing surface of the baseplate.



Applicants would also like to point the Examiner to a section of paragraph [0109] of the originally filed specification to further provide support for the structure of the vertebral body contact element as claimed. Paragraph [0109] states:

"Further, each baseplate 10,30 comprises a vertebral body contact element (e.g., a convex mesh 14,34, preferably oval in shape) that is attached to the outwardly facing surface 12,32 of the baseplate 10,30 to provide a vertebral body contact surface. The mesh 14,34 is secured at its perimeter to the outwardly facing surface 12,32 of the baseplate 10,30. The mesh 14,34 is domed in its initial undeflected conformation, but deflects as necessary during insertion of the artificial disc between vertebral bodies, and, once the artificial disc is seated between the vertebral bodies, deforms as necessary under anatomical loads to reshape itself to the concave surface of the vertebral endplate. This affords the baseplate 10,30 having the mesh 14,34 substantially superior gripping and holding strength upon initial implantation as compared with other artificial disc products." (emphasis added).

It is clearly set forth above that the mesh 14,34 is domed in its initial undeflected conformation such that only the perimeter of the vertebral body contact element is secured to the outwardly-facing surface of the baseplate, but deflects as necessary during insertion of the artificial disc between vertebral bodies. For the foregoing reasons, Applicants request that the Examiner withdraw the current objection to the specification.

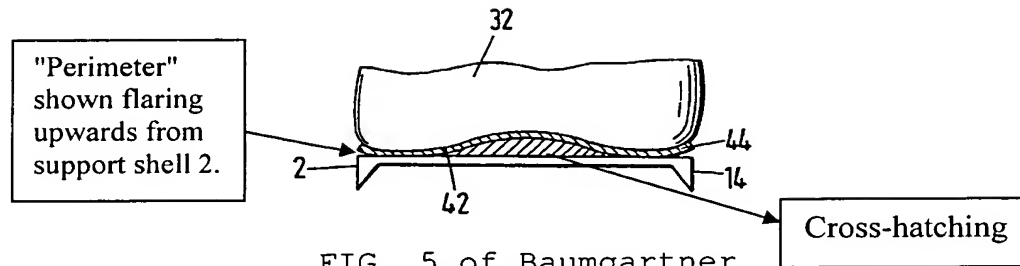
Further in the Action, the Examiner set forth the following rejections:

- Claims 1-9 under 35 U.S.C. § 103(a) as being obvious over the combination of Baumgartner and Hedman; and
- Claims 11-41 under 35 U.S.C. § 103(a) as being obvious over the combination of Baumgartner, Hedman, and U.S. Patent No. 5,926,685 to Krebs et al. ("Krebs").

Most notable among the rejections are those of independent claims 1, 11, 21, and 31. In short, the Examiner rejected the first of those independent claims as obvious in view of the combination of Baumgartner and Hedman, and the latter three as obvious in view of the combination of Baumgartner, Hedman, and Krebs. The Examiner stated his belief that Baumgartner teaches all the limitations of, for instance independent claim 1, save for the outer surface having a groove for receiving a vertebral body contact element therein. To support this missing limitation, the Examiner cited Hedman and asserted that it would have been obvious to one of ordinary skill in the art to combine the two references. Furthermore, and with regard to independent claims 11, 21, and 31, the Examiner once again stated his belief that the combination of Baumgartner and Hedman teach each and every one of the limitations, save for a coating disposed on the outwardly facing surface. To support this limitation the Examiner cited Krebs. Applicants respectfully disagree with the Examiner's assertions regarding Baumgartner, Hedman, and Krebs, and respectfully submit that the Examiner has not made out a *prima facie* case of obviousness.

Specifically, Applicants point out that even the combinations of Baumgartner and Hedman, and Baumgartner, Hedman,

and Krebs, do not teach each and every one of the limitations of independent claims 1, 11, 21, and 31. For instance and with respect to independent claim 1, such claim as it currently pends requires "a vertebral body contact element adapted to engage a vertebral end plate, said vertebral contact element having a central portion and a perimeter, said perimeter of said vertebral body contact element being disposed within said groove of said at least one outwardly facing surface such that only said perimeter of said vertebral body contact element is secured to the perimeter of said groove, *such that said central portion is remote from said groove of said outwardly-facing surface so as to form a gap therebetween when said vertebral body contact element is in a relaxed state.*" The Examiner asserted that Baumgartner teaches such a limitation, except for the inclusion of a groove which the Examiner noted would have been obvious to incorporate in view of Hedman. Putting aside the point that Hedman only teaches such a groove in connection with an interior portion of an intervertebral implant (i.e. for inclusion of springs therein), Applicants point out that neither Baumgartner nor Hedman (or even Krebs) teach a gap between a central portion of the vertebral body contact element and the outwardly-facing surface, when the element is in a relaxed state. On the contrary, Baumgartner teaches (as is best shown in FIG. 5 reproduced below) a central portion that is not remote from the outer surface of the implant of Baumgartner. This is clearly evidenced by the inclusion of cross-hatching in the area between element 44 (i.e. what the Examiner refers to as the vertebral body contact element) and the outer surface 14 of the Baumgartner implant. Cross-hatching is generally included to identify structure in a cross-sectional view. Clearly, there is no "gap" in the teaching of Baumgartner.



Furthermore, as has been stated before, the vertebral body contact element of Baumgartner is simply not designed to be placed in any grooves. Rather, element 44 of Baumgartner is simply meant to be placed along an outer surface of the implant of that reference. This is evidenced by the inclusion of flaring ends of the element, which were most likely included to improve upon the contact area between the element and the vertebral bodies. Where the present invention is meant to allow the vertebral body contact element to deflect upon a force applied thereto (e.g. during insertion) this is simply not the case with Baumgartner. Both the inclusion of structure between the central portion of element 44 and the flared ends of that element, make Baumgartner operate in a much different fashion than the present invention. The Examiner appears to be solely relying upon FIG. 5 of Baumgartner, as well as a very short description of same in the Baumgartner specification. None of this refutes any of Applicants above positions.

Applicants note that their above arguments clearly distinguish Baumgartner from the present invention. As such, Applicants note that each and every one of the limitations of, for example, claim 1, are simply not taught by Baumgartner or supplemented by either Hedman or Krebs. Because independent claims 11, 21, and 31 include limitations similar to those of independent claim 1 (i.e. the limitations not taught by any of the cited prior art), Applicants also respectfully submit that such claims are not obviated by any of the cited prior art. Therefore, in light of all of the above, Applicants respectfully

request allowance of each and every one of independent claims 1, 11, 21, and 31. Although each of the dependent claims have not been discussed specifically herein, such claims are allowable based upon their proper dependence from one of the independent claims, or an intervening claim. Applicants do note that they reserve the right to argue separately the patentability of each of the dependent claims in any future communications regarding the present case or any continuing cases therefrom. Therefore, in light of all of the above, Applicants respectfully request allowance of each and every one of the currently pending claims.

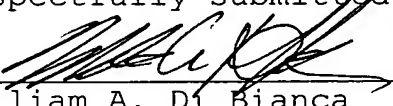
As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone Applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: July 17, 2008

Respectfully submitted,

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